

HNC/D Engineering (Mechanical Engineering)
HNC/D Engineering (Manufacturing Engineering)
HNC/D Engineering (Electrical Electronic Engineering)

Dr Christopher Bidgood, Matthew Amoah, Stephen Payne and Sukomal Sukomal

BSc (Hons) Engineering Design
MSc Engineering

Dr Marco Davi



Welcome

Welcome to University Centre Newbury (UCN), your first choice for technical, career-focussed higher education.

As you look to start the next stage of your education, we are here to support you. Our highly trained staff will guide you through the application and enrolment process, to get you on the right track to the career you want.

Achieve your degree **locally**



Why UCN?



PROGRESSION-FOCUSED

- Subjects based on your chosen career
- Career-focused objectives



SKILLS-BASED

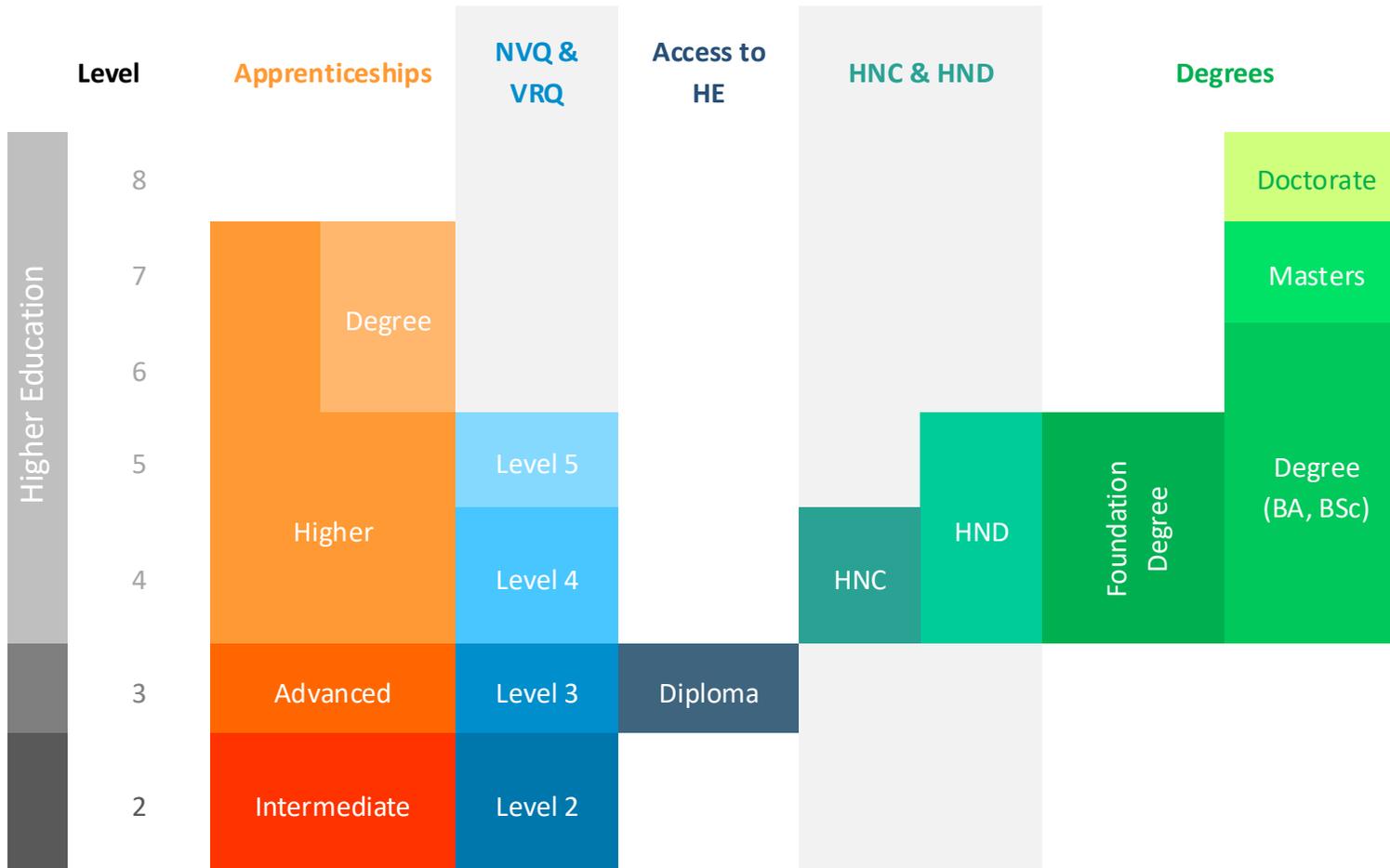
- Fewer exams
- Different assessment methods
- Practical subjects



EMPLOYER-LED

- Curriculum influenced by businesses

UCN Progression vs University



- ✓ Faster route to your chosen career
- ✓ More options available
- ✓ Lower cost and debt-free Higher Education*

Achieve your degree **locally**

*Apprenticeship programmes only. Subject to availability.

Pearson BTEC L4 HNC and L5 HND Engineering (Mechanical Engineering)

BTEC Higher National Diplomas provide a nationally-recognised qualification. Level 4 units are studied on a day-release basis over two years. Students can then progress to study Level 5 units on a day-release basis over one year (full time) or on a day-release basis over two years (part time).

The qualification provides a thorough grounding in the key concepts and practical skills required by the sector with national recognition by employers.

Achieve your degree **locally**

Level 4 Units (over 2 years) 120 credits	Level 5 Units (over 1 year) 120 credits
Engineering Design	Lean Manufacturing
Engineering Maths	Further Mathematics
Engineering Science	Advanced Mechanical Principles
Managing a Professional Engineering Project	Research Project
Mechanical Principles	Sustainability
Fundamentals of Thermodynamics	Virtual Engineering
Engineering Management	Professional Engineering Management
Computer Aided Design and Manufacture	

Pearson BTEC L4 HNC and L5 HND Engineering (Manufacturing Engineering)

BTEC Higher National Diplomas provide a nationally-recognised qualification. Level 4 units are studied on a day-release basis over two years. Students can then progress to study Level 5 units on a day-release basis over one year or on a day-release basis over two years (part time).

Working from our UCN facility incorporating the Engineering workshop, CNC machining facility and online through our specialist platforms, students will gain a thorough grounding in the key concepts and practical skills required by the sector.

Achieve your degree **locally**

Level 4 Units (over 2 years) 120 credits	Level 5 Units (over 1 year) 120 credits
Engineering Design	Lean Manufacturing
Engineering Maths	Manufacturing Systems Engineering
Engineering Science	Advanced Manufacturing Technology
Managing a Professional Engineering Project	Research Project
Production Engineering for Manufacture	Sustainability
Quality and process improvement	Virtual Engineering
Mechanical Principles	Professional Engineering Management
Computer Aided Design and Manufacture	

Pearson BTEC L4 HNC and L5 HND Engineering (Electrical Electronic Engineering)

BTEC Higher National Diplomas provide a nationally-recognised qualification. Level 4 units are studied on a day-release basis over two years. Students can then progress to study Level 5 units on a day-release basis over one year or on a day-release basis over two years (part time).

Working from our state-of-the-art Electronics Lab, and online through our specialist platforms, students will gain a thorough grounding in the key concepts and practical skills required by the sector.

Achieve your degree **locally**

Level 4 Units (over 2 years) 120 credits	Level 5 Units (over 1 year) 120 credits
Engineering Design	Industrial Power, Electronics and Storage
Engineering Maths	Further Mathematics
Engineering Science	Industrial Systems
Managing a Professional Engineering Project	Research Project
Electrical and Electronic Principles	Further Electrical, Electronic and Digital Principles
Instrumentation and Control Principles	Sustainability
Digital Principles	Professional Engineering Management
Electronic Circuits and Devices	

Assessment: HNC/HND

You will be assessed by:

- written assignments
- practical projects
- presentations
- work-based projects

These will include practical work-related activities.



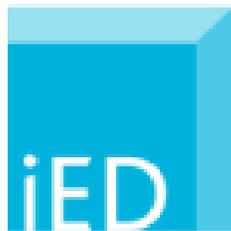
BEng (Hons) Engineering Design

Awarded by Buckinghamshire New University



BUCKINGHAMSHIRE
NEW UNIVERSITY
EST. 1891

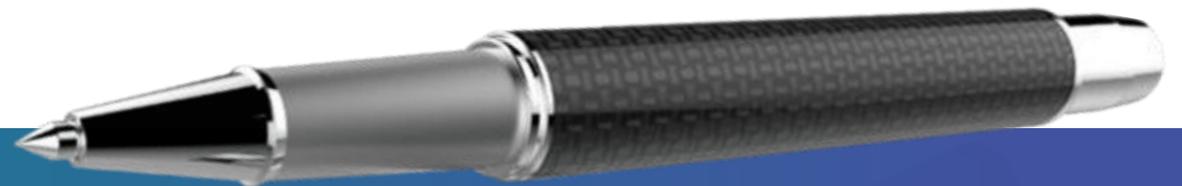
Accredited by the Institute of Engineering Designers
(IED) to IENG level



- This is a one year degree top up programme delivered one day a week on a day release basis.
- Specialist pathways for the BEng (Hons): Engineering Design (Mechanical Engineering), Engineering Design (Electrical Engineering), Engineering Design (Production Engineering)
- Modules studied:
 - **Design for Manufacture:** develop an understanding of the way in which design must be structured, analysed, controlled and assessed.
 - **Leadership and Management:** develop an understanding of the philosophies, strategies, techniques and applications of quality management in both the manufacturing and service industries.
 - **Work based research project:** undertake an extended investigation related to the programme of study and demonstrate an ability to learn independently. Apply relevant methods of enquiry to a topic and critically reflect and make judgements on theory, policy and practice.
- Progress to a Master's programme and work towards the academic requirements for Chartered Engineer.

You will be assessed through a combination of:

- written assignments
- work-based assessments
- case studies
- team projects
- live projects
- presentations
- exams





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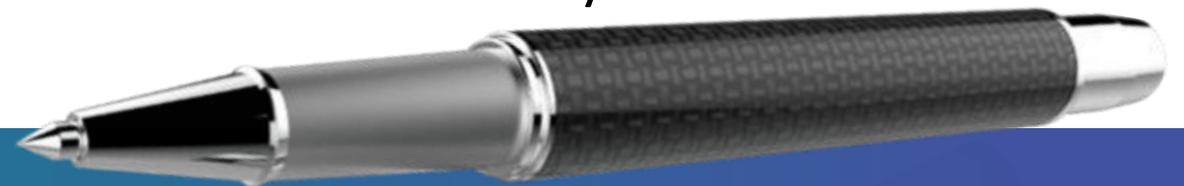
- Awarded by Buckinghamshire New University
- This is a two year programme delivered one day a week on a day release basis.
- Emphasis on critical analysis, problem identification and solving design and technology in the engineering context.
- Focus on quality management and the development of the skills required to lead and manage complex engineering projects/systems.
- Develop technical leadership skills in developing new products and services, understand how to improve existing ones and evaluate commercial implications to the business following professional ethics and sustainability.
- Study towards becoming a Chartered Engineer (CEng).

Modules studied:

- **Project Management and Research Skills** (work based): develop your research skills for designing, planning and conducting an academic or industry-based engineering project. Aspects of engineering ethics and professional codes of practice and professional development audit are also covered.
- **Industrial Group Project** (work based): develop a project based in a real industrial environment and the essential professional engineering skill of working with others to achieve an engineering output.
- **Product Development for Business** (work based): develop your knowledge and understanding of different phases and activities essential to successfully initiate and implement a new engineering system or designing a new product.
- **Contemporary Methods in Engineering Design**: understanding of key design methods covering the use of computer-based methods and systems for modelling engineering products as well as the human factors.
- **Dissertation**: investigate in detail by analysing and evaluating the theories and concepts around the chosen subject.

Assessment: MSc Engineering

- You will be assessed through a combination of assignments, work-based assessments, case studies, team projects, live projects, presentations and exams.
- The assessment method is selected as appropriate to each module and based on the requirements of the Engineering Council.
- Whilst setting the assessment brief for the research skills part of the module, opportunities will be considered to enable you to collect your own data from the engineering practices.
- In addition to portfolio work, some units may also include externally marked assessment material, sat under controlled conditions.



Uniform and equipment

Practical sessions are conducted in the workshops. Personal protective equipment is required as per lab session.

PPE

- Goggles
- Lab Coats
- Safety Boots

SOFTWARE

Relevant software licences will be supplied as required.



Progression

Progression from HNC to:

- HND
- Employment
- Degree Apprenticeship

Progression from BEng (Hons) to:

- Masters
- Employment
- Postgraduate Apprenticeship
- Apply for professional status

Progression from HND to:

- Degree
- Employment
- Degree Apprenticeship

Progression from Masters to:

- Apply for professional status
- Specialist study, including a PhD programme



Facilities



Achieve your degree **locally**

How we can help

Development Coaches, tutors and support staff work closely together, and with other local partners, to provide you with:

- Learning support
- Higher education workshops (research skills, academic writing skills)
- Progression coaching
- Health and wellbeing support



If you have any questions or require further information on these courses, or any other aspects of studying at UCN, please contact us.

Stephen Payne (HNC/D Mechanical & Manufacturing)

s-payne@ucn.ac.uk

Sukomal Sukomal (HNC/D Electrical Electronic)

s-sukomal@ucn.ac.uk

Dr Christopher Bidgood

c-bidgood@ucn.ac.uk

Dr Marco Davi (BSc (Hons) and Masters)

M-davi@ucn.ac.uk

Matthew Amoah

M-amoah@ucn.ac.uk

